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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/801,554	03/17/2004	Kazuaki Shingo	10517/220	3477

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EXAMINER

PHAN, HAU VAN

ART UNIT	PAPER NUMBER
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3618

DATE MAILED: 02/17/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/801,554	Applicant(s) SHINGO ET AL.
	Examiner Hau V Phan	Art Unit 3618

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>3/17/2004</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Information Disclosure Statement

1. The information disclosure statement (IDS) submitted on 3/17/2004 has been considered.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. **Claims 1-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hirano (6,460,642) in view of Sakurai et al. (JP 2004104918).**

Hirano in figures 1-4, discloses a hybrid vehicle comprising an engine (2), which is mounted in an engine room, and serves as a driving source. Hirano also discloses a transmission (5), which is disposed adjacent to the engine, and incorporates at least one electric motor, which serves as a driving motor. Hirano also discloses an inverter (12) disposed in the engine room and at least one high voltage wire (53A), which is routed behind the engine with respect to a vehicle transverse direction, and connects the inverter and the electric motor incorporated in the transmission. Hirano fails to show the wire routed behind the engine in the vehicle longitudinal direction.

Sakurai et al. in figure 1-4, teach a power converter comprising cables (10), which is routed behind an engine with respect to a vehicle longitudinal direction. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the hybrid vehicle of Hirano with the power converter having cables, which is routed behind an engine with respect to a vehicle longitudinal direction as taught by Sakurai et al. in order to reduce space, which is occupied by cables.

Regarding claim 2, Hirano discloses a middle portion of the high voltage wire is secured to a securing unit (as shown in figure 3).

Regarding claim 3, Hirano discloses the securing unit comprising at least one of accessory fixed to the engine, the transmission, and a transmission accessory fixed to the transmission.

Regarding claim 4, Hirano discloses the engine accessory, which is an intake pipe (not number) for introducing air to the engine.

Regarding claim 5, Hirano discloses the high voltage wire, which can be secured to the engine and the intake pipe by a holders.

Regarding claim 6, Hirano discloses the high voltage wire including a restricted portion, which is secured to the securing unit whereby movement thereof is restricted, and a non-restricted portion, which is not secured to the securing unit so that movement thereof is not restricted.

Regarding claim 7, Hirano discloses the high voltage wire, which is routed such that the restricted portion thereof is positioned closer to the engine and transmission

side, and the non-restricted portion thereof is positioned closer to the inverter side, the inverter being fixed to a vehicle body.

Regarding claim 8, Hirano discloses the high voltage wire, which is secured to the securing unit at a location that is apart from an exhaust pipe of the engine.

Regarding claim 9, Hirano discloses the exhaust pipe, which is disposed toward one of the lateral sides of the vehicle from the engine.

Regarding claim 10, Hirano discloses the engine is a V-type engine that includes a pair of banks in which a plurality of cylinders are arranged in a vehicle longitudinal direction and an exhaust pipe is disposed toward one of the lateral sides of the vehicle from the respective banks, and the high voltage wire is routed near and above the transmission.

Regarding claim 11, Hirano discloses the inverter, which is connected with the electric motor by a plurality of high voltage wires, and respective high voltage wires are secured to the securing unit in a bundle.

Regarding claim 12, Hirano discloses a securing member secures the high voltage wire to the securing unit, which is provided integrally with the securing unit.

Regarding claim 13, Hirano discloses the transmission, which is disposed at the back of the engine with respect to the vehicle longitudinal direction, the inverter is disposed near and above the engine, and the electric motor is connected with the high voltage wire at an upper portion of the transmission.

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Smith discloses a vehicle power system, Horwinski discloses a hybrid power automobile.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hau V Phan whose telephone number is 703-308-2084. The examiner can normally be reached on 7:30AM-4:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christ Ellis can be reached on 703-308-2560. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Hau V Phan
Examiner
Art Unit 3618

Hau Phan
2/12/05